ANALYSING WHETHER A COUNTRY'S POLICIES AND ACTIONS SUSTAINABLY INCREASE ITS WELLBEING

A Summary of Arthur Grimes' Marsden Research

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Since we stopped measuring success through military victories, money (and GDP in particular) has been the most common economic measure of a country's success. A 2009 study by economists Amartya Sen, Joseph Stiglitz, and Jean-Paul Fitoussi examined alternatives to GDP and caused a seismic shift in attitudes.

In 2016, Arthur Grimes and colleagues finished up his "Testing the validity and robustness of national wellbeing and sustainability measures" project, generously funded by a Marsden Grant.

The research addresses a fundamental question: "Are a country's policies and actions sustainably increasing its wellbeing?" Social scientists and ecologists have developed many indicators of national wellbeing and sustainability. Dr Grimes's research is an overarching study that tests the adequacy and robustness of these aggregate measures for answering the fundamental question.

This programme has delivered new:

- measures of wellbeing applicable internationally and to New Zealand, and
- understanding of how policies affect wellbeing both within countries and across countries.

It is also developing measures that help to understand the meaning of "sustainability" and how to apply this concept to a long-term analysis of the sustainability of the New Zealand economy.

The wellbeing research has been cited internationally (including by Nobel Prize winner Angus Deaton in a 2015 paper), and has dovetailed well into the New Zealand Treasury's programme on living standards. A New Zealand Treasury Guest Lecture on the topic in 2015 had one of the largest ever attendances at a Treasury Guest Lecture.

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Key findings of the programme include:

- Policy-makers need to consider both income-related outcomes and broader subjective wellbeing outcomes when designing policy.
- People's overall life satisfaction is related to their absolute income and to their relative income both within their own country and relative to people in other countries. Policy-makers have a role in ensuring that their own country's incomes are ranked highly relative to those in comparable countries in order to raise their citizens' subjective wellbeing.
- Consumption-based measures provide a more accurate predictor of an individual's subjective wellbeing than do income-based measures. This is the case across different income and consumption levels, across region-types, and across different ethnicities (Pākehā, Māori, Pasifika and Asian).
- Fiscal (taxation and government expenditure) policies directly affect people's life satisfaction in ways that may conflict with economic growth objectives. Specifically, indirect taxes such as GST have a more deleterious effect on life satisfaction than do comparable levels of income tax, although these effects differ by individual income level.
- By contrast, income taxes have a more deleterious effect on economic growth than does GST. These life satisfaction results demonstrate why governments tend to adopt fiscal structures that do not maximise economic growth.
- New Zealand households are ranked third richest in the world (behind USA and Canada) when using a newly developed consumption-based measure for households with a 15-year old child.
- When using the data used to construct this measure, the degree of inequality across New Zealand households is one of the highest within the developed world.
- International migration is driven by both comparative income and comparative subjective wellbeing (i.e. life satisfaction) factors across countries.
- Domestic migration (within a country) is also driven by both comparative income (and employment) and comparative subjective wellbeing factors across regions.

WELLBEING AND INEQUALITY

Grimes, Oxley and Tarrant (2014) summarised New Zealand's performance across a range of national wellbeing measures for 2005 and earlier years. The measures included indicators of objective and subjective wellbeing, looking at both means and distributions. The measures showed consistent indications of New Zealand as a highly unequal society relative to other advanced countries.

Grimes and Hyland (2015a and 2015b) calculated a new theoretically-driven measure of objective wellbeing (the Material Wellbeing Index, MWI) based on data from the OECD's Programme for International Student Assessment (PISA), which measured possessions within a 15-year old student's household across a standard set of possessions. Using 2012 data, New Zealand ranked third for the MWI out of 23 "early OECD" countries that had available data (behind only USA and Canada). This is a considerably higher ranking relative to the country's per capita GNI ranking.

However, inequality in the distribution of household possessions showed New Zealand to be highly unequal, at 18th out of the 23 countries. The inequality ranking on this measure is consistent with New Zealand's Gini coefficient of income inequality and life satisfaction inequality rankings. Nevertheless, New Zealand and most other developed countries have lower levels of inequality relative to less developed and transition countries.

The difference between New Zealand's ranking on per capita GNI and the MWI raises the question of whether an income-based measure or a consumption-based measure is a better indicator of wellbeing. Carver and Grimes (2016) answer this question using data from the New Zealand General Social Survey. This data shows that a consumption-based measure completely dominates an income-based measure as a predictor of individuals' subjective wellbeing. Furthermore, this is the case for:

- high, mid and low income-earners;
- high, mid and low consumers;
- across region-types; and
- Pākehā, Māori, Pasifika and Asian respondents.

At a national level, Grimes and Hyland (2015a) tested whether their MWI metric explained certain cross-country aggregate wellbeing outcomes better than did conventional national income measures. Each metric had some advantages relative to the other. The MWI was notable in out-performing national income in explaining average (self-reported) health status across countries.

EASTERLIN PARADOX

Grimes and Reinhardt (2015) produce evidence that, within developed countries, people do not improve their subjective wellbeing when all intra-country incomes rise by the same degree. However, residents do experience a rise in their subjective wellbeing when their national income rises relative to those of other countries. As an example of this phenomenon, Australia's strong economic performance over the past two decades arising from its mineral wealth opportunities may have depressed life satisfaction in New Zealand as we failed to keep up with Australia's per capita incomes – despite New Zealanders' own material living standards rising, on average, over the same period.

Income redistribution policies may raise average wellbeing in a country. However, if redistribution policies reduce average incomes relative to other countries, then these policies would have a negative impact on national subjective wellbeing. Redistribution as a tool therefore has nuanced impacts that may partially counter-balance each other.

ETHNICITY AND WELLBEING

In New Zealand, ethnicity is one factor that is strongly associated with inequality. Objective and subjective measures of wellbeing for Māori generally fall below those of European and other non-Māori ethnicities (except perhaps those from the Pacific Islands). Grimes, MacCulloch and McKay (2015) find statistically significant differences in the distributions of Māori beliefs and values relative to those of other New Zealanders, reflecting the different cultures. In particular, it finds that Māori (on average) place a greater emphasis on environmental outcomes relative to economic growth outcomes than do Pākehā.

The work on Pākehā and Māori beliefs and values is important in highlighting the need for research to differentiate between objectives that may be perceived differently across ethnicities. This has implications for how we choose aggregate measures of wellbeing, given that the weights placed on different outcomes are likely to be culturally dependent. It also has implications for economic and other outcomes. The international literature shows that certain beliefs and values are at least associated with – and may be causally linked to – certain economic outcomes. If this is the case, and if (as the research indicates) Māori beliefs and values tend to be more akin to those shown in international studies to be associated with poorer material economic outcomes, then this raises questions as to how choices can be made that are consistent both with Māori beliefs and values and with high economic achievement amongst Māori. This is a challenging issue that those addressing Māori outcomes will need to consider in order to bring about culturally-appropriate solutions to economic under-achievement of many Māori.

MIGRATION AND WELLBEING

Grimes, Oxley and Tarrant (2014) examined country real incomes and subjective wellbeing using 50 years of data. Clear evidence emerged that both are important in determining migration flows across developed countries.

Grimes, Ormsby and Preston (forthcoming) examine within-country (inter-regional) migration using the 14 year longitudinal HILDA survey of Australians. This work shows again that both incomes and subjective wellbeing are important determinants of where people choose to live and migrate. The detailed nature of the data shows that most groups within society benefit in subjective wellbeing terms when they migrate within Australia, even though there is much less evidence that their incomes improve after migration. However low incomes and poor employment prospects increase the likelihood that people will move from their existing location. In a follow-up paper, Preston and Grimes (forthcoming) show that subjective wellbeing and wage outcomes for migrants within Australia differ markedly, on average, by gender.

Together, these migration tests indicate that policy-makers should concentrate not just on making their region high-income or making it a nice place live; both aspects are important drawcards for prospective and current residents. At a methodological level, measures of subjective wellbeing have real predictive content and are worthy candidates for policy-makers to target (along with incomes and other objectives) when deciding policy.

WELLBEING AND POLICY IMPLICATIONS

The Grimes and Reinhardt (2015) results show that governments must consider their country's average incomes relative to those in other countries in order to maintain or raise their citizens' subjective wellbeing. At the same time, the migration studies show that individuals value both income and subjective wellbeing when deciding where to live. Governments may face a trade-off between raising domestic incomes and raising domestic subjective wellbeing.

Grimes, Ormsby, Robinson and Wong (2016) show that this trade-off is faced explicitly when setting fiscal policy. A strong body of prior literature shows that certain ('distortionary') taxes such as income taxes have a negative effect on GDP growth relative to the effects of ('non-distortionary') taxes such as GST. Yet governments still use income taxes, and they normally raise more revenue through such distortionary taxes than through non-distortionary taxes. This study shows that a reason for this paradoxical behaviour lies in the subjective wellbeing impacts of the taxes. On average, non-distortionary taxes harm subjective wellbeing to a greater extent than do distortionary taxes so governments curb their use of non-distortionary taxes in favour of distortionary taxes, relative to the growth maximizing tax combination. Similar, but less stark, contrasts between growth-maximising and wellbeing-maximising policies are shown to exist also for government expenditure categories.

Consistent with the common observation that taxes such as GST tend to be regressive (i.e. hurt the poor more than the rich) whereas income taxes are designed to be progressive, the research finds that the subjective wellbeing of poorer individuals is hurt more by non-distortionary taxes and the contrary is the case for richer individuals.

HOW TO ANALYSE FUTURE WELLBEING

Mubashir Qasim, a PhD student at University of Waikato, is researching sustainability measures with an application to New Zealand. A first paper, "The Scientometrics of Sustainability and Well-being", provides a comprehensive and systematic review of a wide range of sustainability measures.

Separately, Mubashir (principally under the supervision of Prof Les Oxley at University of Waikato) is compiling a dataset on Genuine Savings for New Zealand over time. Genuine Savings is a measure of changes in comprehensively measured capital stocks of a country (including physical, natural and human capital).

CONCLUSION

The results of the research should prove to be useful for policy-makers. The fiscal-related research has direct implications for understanding the trade-offs across different types of taxation and government expenditure. The inter-country wellbeing results demonstrate that policy-makers must continue to work to improve average per capita incomes if they are to protect or enhance their citizens' wellbeing. Finally, issues of relativities and inequality demonstrate that governments need to pay attention to the degree of inequality present within a country if they are concerned with the subjective wellbeing of their citizens.

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